WHAT IS CLAIMED IS:

1. A method for inserting a new access rule into an access control list, the list configured to contain independent rule blocks having ordered access rules, the method comprising:

if the list is empty, creating a new independent rule block and inserting the new access rule therein;

if the list is not empty, creating from the list a set of mapped independent rule blocks;

for each block in the set, attempting to determine a position for the new access rule;

removing from the set those blocks for which a position cannot be determined; and

merging the blocks in the set to form a new independent rule block and inserting the new access rule therein.

2. The method of claim 1 wherein creating from the list a set of mapped independent rule blocks comprises selecting all blocks in the list having at least one rule that is not disjoint with the new access rule.

3. The method of claim 1 wherein attempting to determine a position for the new access rule comprises:

comparing each existing rule in the rule block to the new access rule; and

if all existing rules have been compared against the new access rule and no determination has been made, determining a position for the new access rule that is at the end of the block.

4. The method of claim 3 wherein comparing each existing rule in the rule block to the new access rule comprises:

if the two rules are disjoint, continuing to the next comparison;

if the new access rule is a subset of the existing rule and the two rules perform the same action, determining that there is no position in the block for the new access rule;

if the new access rule is a subset of the existing rule and the two rules do not perform the same action, resolving the conflict between the new access rule and the existing rule;

if the existing rule is a subset of the new access rule and the two rules perform the same action, determining a position for the new access rule that is in the place of the existing rule and removing the existing rule from the block;

if the existing rule is a subset of the new access rule and the two rules do not perform the same action, resolving the conflict;

if the new access rule and the existing rule are not disjoint, neither is a subset of the other, and the two rules have the same action, continuing to the next comparison; and

if the new access rule and the existing rule are not disjoint, neither is a subset of the other, and the two rules do not have the same action, resolving the conflict.

5. The method of claim 4 wherein resolving the conflict if the new access rule is a subset of the existing rule and the two rules do not perform the same action further comprises:

if the new access rule takes priority, determining a position for the new access rule that is immediately before the existing rule; and

if the existing rule takes priority, removing the block from the set of mapped independent rule blocks.

6. The method of claim 4 wherein resolving the conflict if the existing rule is a subset of the new access rule and the two rules do not perform the same action further comprises:

if the new access rule takes priority, determining a position for the new access

rule that is in the place of the existing rule and removing the existing rule from the block; and

if the existing rule takes priority, designating a position in the block for the new access rule that is immediately behind the existing rule.

7. The method of claim 4 wherein resolving the conflict if the new access rule and the existing rule are not disjoint, neither is a subset of the other, and the two rules do not have the same action further comprises:

if the new access rule takes priority, placing the new access rule in a position occupied by the existing rule; and

if the existing rule takes priority, continuing to the next comparison.

8. The method of claim 4 wherein resolving the conflict comprises establishing a priority based on predefined rules.

9. The method of claim 4 wherein resolving the conflict comprises establishing a priority based on user input.

10. The method of claim 1 wherein merging the blocks in the set to form a new independent rule block and inserting the new access rule therein comprises:

placing all rules from every block in the set which are positioned ahead of the new access rule in front of the new access rule in the new block; and

placing all rules from every block in the set which are positioned after the new access rule behind the new access rule in the new block.

11. The method of claim 1 further comprising removing an existing rule, wherein the removing includes:

searching for the existing rule to be removed based on an identification number associated with the existing rule; and

removing the rule.

12. A computer system comprising:

a rule base containing an access control list configured to hold independent rule blocks having ordered access rules;

a rule enforcing engine for enforcing the rules in the access control list; and

a rule insertion engine configured to execute instructions for inserting a new access rule into the access control list, the instructions comprising:

if the access control list is empty, creating a new independent rule block and inserting the new access rule therein; and

if the access control list is not empty, creating from the access control list a set of mapped independent rule blocks;

if the set is empty, creating a new independent rule block and inserting the new access rule therein; and

merging the blocks in a subset of the set comprising those blocks for which a position for the new access rule can be determined, and inserting the new access rule therein.

13. The system of claim 12 wherein creating a set of mapped independent rule blocks comprises evaluating each independent rule block in the access control list and determining whether there is an existing access rule in the independent rule block that is not disjoint with the new access rule.

14. The system of claim 12 wherein determining a position for the new access rule comprises:

comparing each existing rule in the independent rule block to the new access rule; and

if all existing rules have been compared against the new access rule and no position has been determined, designating a position for the new access rule that is at

the end of the block.

15. The system of claim 14 wherein comparing each existing rule in the independent rule block to the new access rule comprises:

if the two rules are disjoint, continuing to the next comparison;

if the new access rule is a subset of the existing rule and the two rules perform the same action, determining that there is no position in the block for the new access rule;

if the new access rule is a subset of the existing rule and the two rules do not perform the same action, determining a priority between the new access rule and the existing rule;

if the existing rule is a subset of the new access rule and the two rules perform the same action, determining a position for the new access rule that is in the place of the existing rule and removing the existing rule from the block;

if the existing rule is a subset of the new access rule and the two rules do not perform the same action, determining a priority between the existing rule and the new access rule;

if the new access rule and the existing rule are not disjoint, neither is a subset of the other, and both have the same action, continuing to the next comparison; and

if the new access rule and the existing rule are not disjoint, neither is a subset of the other, and the two rules do not have the same action, determining a priority between the existing rule and the new access rule.

16. The system of claim 15 wherein determining a priority comprises the use of predetermined rules.

17. The system of claim 15 wherein determining a priority comprises accepting user input to determine priority.

18. The system of claim 12 wherein removing the rule comprises searching for the rule to be removed based on an identification number associated with the rule and removing the rule.

19. The system of claim 12 wherein merging the blocks in a subset comprises:

placing all rules from every block in the subset which have a position ahead of the rule being inserted in front of the new access rule in the new block; and

placing all rules from every block in the subset which have a position after the new access rule being inserted behind the new access rule in the new block.

20. A computer readable medium comprising computer executable instructions for inserting a new access rule into an access control list containing independent rule blocks having ordered access rules, the instructions comprising:

creating a new independent rule block and inserting the rule therein if the list is empty;

creating from the list a set of mapped independent rule blocks if the list is not empty;

determining a position for the new access rule for each block in the set and removing from the set those blocks for which a position cannot be determined; and

merging the blocks in the set to form a new independent rule block and inserting the rule therein.

21. The computer readable medium of claim 20 wherein creating the set of mapped independent rule blocks includes selecting all blocks in the list having at least one rule that is not disjoint with the new access rule.

22. The computer readable medium of claim 20 wherein determining a position for the new access rule includes comparing each existing rule in the rule block to the new access rule and, for each comparison:

if the two rules are disjoint, continuing to the next comparison;

if the new access rule is a subset of the existing rule and the two rules perform the same action, determining that there is no position in the block for the new access rule;

if the new access rule is a subset of the existing rule and the two rules do not perform the same action, resolving the conflict between the new access rule and the existing rule, and if the new access rule takes priority, assigning a position of the existing rule to the new access rule, and if the existing rule takes priority, not assigning a position to the new access rule;

if the existing rule is a subset of the new access rule and the two rules perform the same action, assigning a position of the existing rule to the new access rule;

if the existing rule is a subset of the new access rule and the two rules do not perform the same action, determining which of the new access and existing rules has priority and, if the new access rule takes priority, assigning a position of the existing rule to the new access rule, and if the existing rule takes priority, assigning a position in the block for the new access rule that is immediately behind the existing rule;

if the new access rule and the existing rule are not disjoint, neither is a subset of the other, and the two rules do not have the same action, determining which of the new access and existing rules has priority and, if the new access rule takes priority, assigning a position of the existing rule to the new access rule; and

if all existing rules have been compared against the new access rule and no determination has been made, determining a position for the new access rule that is at the end of the block.

23. The computer readable medium of claim 21 wherein determining which of the new access and existing rules has priority is based at least partly on user determined criteria.

24. The computer readable medium of claim 20 wherein merging the blocks in

the set to form a new independent rule block and inserting the rule therein comprises:

placing all rules from every block in the set which have a position ahead of the rule being inserted in front of the new access rule in the new block; and

placing all rules from every set which placed after the rule being inserted behind the new access rule in the new block.

25. The computer readable medium of claim 20 wherein removing the rule comprises searching for the rule in the list based on a unique identification number and removing the rule.